

## HITACHI 2-BARREL

No doubt, you see plenty of these units every week. This two-barrel Hitachi carb appears on some Mazdas, on Nissans, and on Subarus. They're three good reasons to learn this carburetor! Once you know its quirks, you can overhaul one without any grief.

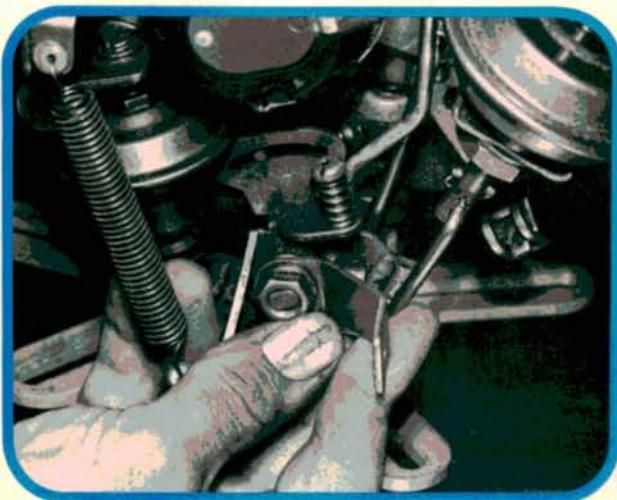
Before you yank one off the engine, always check the following items:

- 12 volt power to both the electric choke and to the idle solenoid. If you don't have 12 volts available with the key on, trace the circuit(s) and repair the problem. Without a constant 12-volt feed, the choke won't un-

choke properly—if at all. Without 12 volts, the idle solenoid won't let the engine idle!

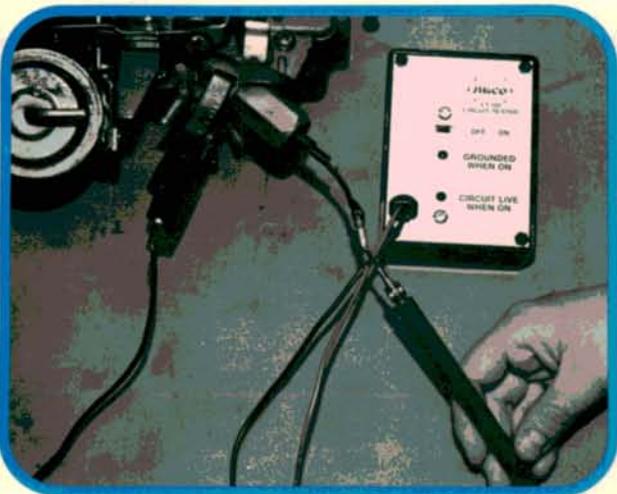
- idle solenoid operation. Take a jumper wire directly from the battery to the idle solenoid. The solenoid should click when you power it up. No click, no idle! Got that?

- throttle shaft slop. Shake the throttle lever up and down. If this causes the idle speed to wander all over the place, replace the carburetor. Why waste the customer's money on a carb with a sloppy throttle base?



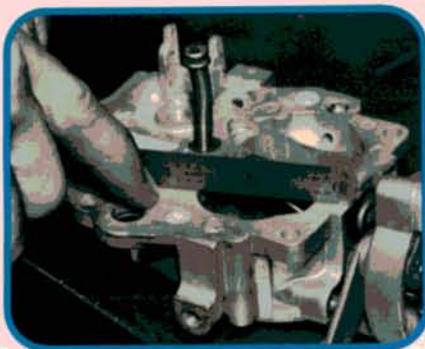
### 1 SHAKE MY SHAFT

Gauging throttle shaft/throttle base wear is a judgment call. Whenever you have a good, smooth-idling Hitachi carb handy, wiggle its throttle shaft. Feel the amount of movement, note any change in idle speed, and then log these results into your long-term memory.



### 2 NO SOLENOID, NO IDLE

Sure, you can do a quick continuity check on the solenoid windings, but it's just as easy to habitually apply battery power to it before you pull the carb off the car. When the solenoid—or the power to it—fails, the engine will only run *above* idle speed.



# 3

## WHAT ARE YA, WARPED OR SOMETHIN'?

As soon as you remove the air horn, always straight-edge the surface we're pointing to here. If it's warped, replace the carb. We've seen guys salvage carbs by doubling up the air horn gasket, but the double-gasket gag isn't a guaranteed fix.



# 4

## TO ADJUST MIXTURE, POP THIS PLUG

This is the idle mixture concealment plug. To remove it, lightly center-punch it and drill it. Thread a self-tapper into it and pull it out. This mini-slide hammer tool from Thexton is ideal for pulling this—and other—carburetor plugs.



# 5

## PINNED DOWN

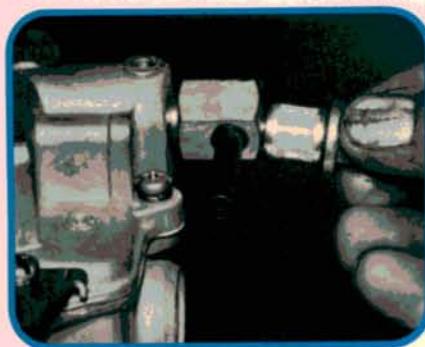
Small parts just love to go AWOL on you. Or, they dive into the nasty muck at the bottom of the carb-cleaner drum. Get in the habit of putting these washers and pins right back on the part after you pull that part off the carburetor.



# 6

## HEAT IN TIME SAVES MINE

Suppose this pan-head screw won't budge. Heating the screw head with your soldering iron will safely soften the factory-applied sealer so you won't twist it off. When you install this screw, put a drop of thread-locking sealer on its threads.



# 7

## CLEAN SCREEN

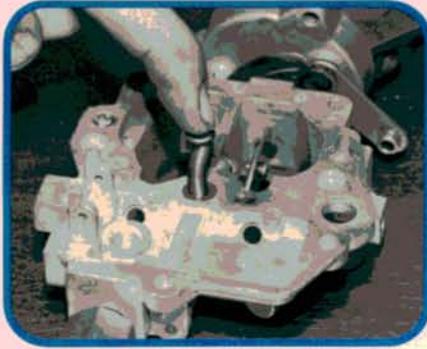
To do a thorough cleaning, always remove this inlet filter screen before you dunk the air horn in the carb cleaner. Many technicians say that a righteous rebuild requires a new filter screen—even if the screen isn't clogged up or torn up.



# 8

## IDLE TALK

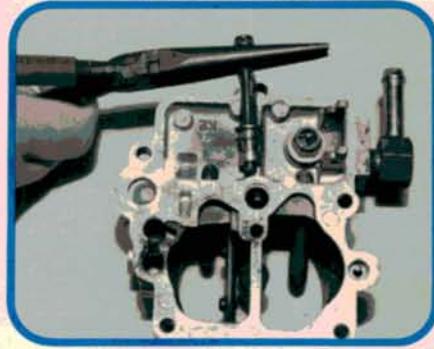
The complaint is no idle or poor idle. There're no vacuum leaks and the idle solenoid's okay. Odds are that the tiny orifice inside this idle jet is clogged. Always remove this jet before you dip the carb and flush it and the idle passage thoroughly.



# 9

## FREE 'N EASY

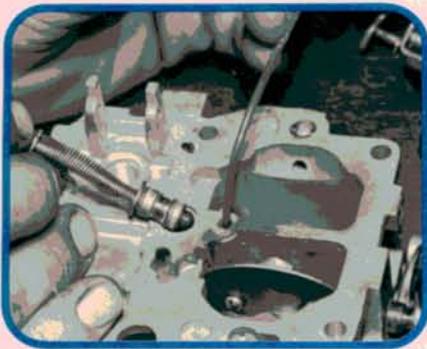
When you apply light finger pressure, the power valve should slide up and down freely and smoothly.



# 10

## COOL JERK

Remember that the metal around the power piston retainer is lightly staked. Slide down the spring and carefully grab the piston as shown here. In a quick, jerking motion, pull the piston *straight* upward. Whatever you do, don't bend the sucker!



# 11

## SPIT-N-POLISHED PISTON

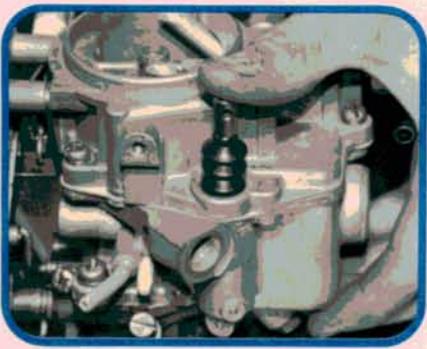
Poor power piston falls prey to varnish and carbon deposits. Carefully pop the piston out of the air horn and lightly polish it with fine steel wool. Then flush out the piston bore by spraying solvent into this hole between the throttle bores.



# 12

## HONORABLE DISCHARGE

Always flush this passage so you're sure the pump discharge nozzle is clean. Air horn warpage allows the fuel to leak *around* this passage instead of flowing through it. Then the engine falls on its face!



# 13

## ALL PUMPED UP, NOWHERE TO GO

Check this! Before you button up the carb, pour some clean gas into the bowl. Install the air horn and a few of its screws snug but not tight. Operate the pump stem with your thumb and watch for a healthy stream of fuel from the discharge nozzle.



# 14

## STEMMING STEM DAMAGE

Handle this power valve with kid gloves. Never jam or bend the little stem inside the valve. Some technicians create a universal power valve tool by carefully cutting or grinding a little clearance notch in a screwdriver tip as shown here.



# 15

## 007 TO THE RESCUE

Ever do any domestic repairs? If you or your buddies did any *serious* Holley or Rochester carburetor work, you may have one of these layin' around. The Borroughs BT-3007 power valve tool works perfectly on Hitachi units!



# 16

## LOOSEY-GOOSEY POWER VALVES

Some power valve gaskets are a compressible, non-metallic material. Some guys claim that when they use the non-metallic gaskets, the power valves *tend* to loosen up. They insure the job by putting a drop of thread-locking sealer on the power valve threads.



# 17

## WE'RE DROPPIN' OUT, MAN

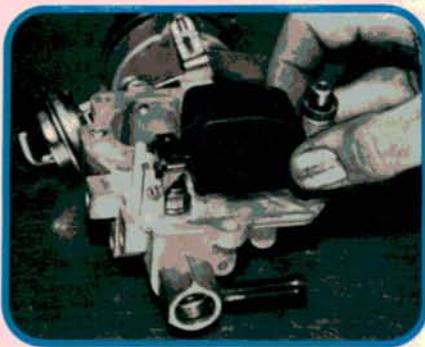
If the OE locking retainers are missing, these defiant little plugs can and will vibrate out of the bowl. Discipline each one with a drop of thread-locking sealer. Don't overdo it or you'll have main jets loaded with thread sealer!



# 18

## FLOAT LEVEL QUICKIE

Wanna get a quicker, more accurate float level reading? Then hold the air horn like so. Let the weight of the float alone rest on the inlet needle valve. **NEVER** compress the needle valve during a float level measurement!



# 19

## FLOATIN' AWAY

Whenever you overhaul a carb equipped with a non-metallic float, reusing the old float is false economy. Sure, it may weigh in fine today, but you never know when it'll begin sucking up fuel and slowly dropping toward the bottom of the bowl. Install a new one!



# 20

## FLOAT DROP CHECK

With the air horn inverted as shown here, gauge the float drop between this float tab and the tip of the inlet needle valve stem.